Appl. No. 10/787,314 Amdt. dated March 27, 2006 Reply to Office Action of December 29 Replacement Sheet 4/4 START 100 **DETECT BATTERIES CONNECTED TO CHARGER** 102 -**ANY** No CONNECTED **BATTERIES?** 104 -Yes **DETERMINE TYPES OF CONNECTED BATTERIES** 105-DETERMINE AVERAGE CURRENT DRAIN OF **BATTERIES DURING USAGE** 106~ **DETERMINE DIFFERENCE BETWEEN** BATTERY'S MAXIMUM CHARGE CAPACITY AND ACTUAL CHARGE 108~ SET CHARGING CURRENTS TO CONNECTED BATTERIES TO COMPLETELY CHARGE THEM AT SUBSTANTIALLY THE SAME TIME

FIG. 4